a first expression cassette having in the direction of transcription (1) a transcriptional and translational initiation region functional in said plant cells, (2) a mammalian viral pathogen structural gene [coding for said mammalian virus peptide], and (3) a termination region, whereby said structural gene is expressed to produce an expression product of said mammalian [peptide]viral pathogen gene; and

isolating said mammalian [peptide]viral pathogen gene expression product [substantially] free of non-plant cell [components] contaminants.

Cancel Claims 2-13.

Add the following new claims:

--14. (New) A method for producing an expression product of a mammalian viral pathogen gene, comprising:

growing a transformed dicotyledonous plant comprising plant cells containing an integrated sequence comprising a first expression cassette having in the direction of transcription (1) a first transcriptional and translational initiation region functional in said plant cells, (2) a first structural gene coding for said mammalian viral pathogen gene expression product, (3) a first termination region; and a second expression cassette having in the direction of transcription (4) a second transcriptional and translational initiation region functional in said plant cells, (5) a second structural gene coding for a peptide that allows selection of plant cells expressing said second structural gene, (6) a second termination region, so that said first structural gene is expressed and a mammalian viral pathogen gene expression product free of non-plant contaminants is obtained.

15. (New) An expression product of a mammalian viral pathogen gene produced according to the method of Claim 14.

16. (New) An expression product of a mammalian viral pathogen gene produced according to the method of Claim 14, further comprising:

the step of isolating said mammalian viral pathogen gene expression product from said plant.

17. (New) The expression product of a mammalian viral pathogen gene according to Claim 16, further comprising:

the step of purifying said expression product.

18. (New) An expression product of a mammalian viral pathogen gene according to Claim 1 or Claim 14, wherein said plant cells are seed cells.

19. (New) The expression product of a mammalian viral pathogen gene according to Claim 18, wherein said seed cells are rapeseed seed cells.

20. (New) An expression product of a mammalian viral pathogen gene according to Claim 1 or 14, wherein said plant cells are tobacco cells.

21. (New) An expression product of a mammalian viral pathogen gene according to Claim 14, wherein said first structural gene is expressed in a part of said plant which is edible.

22. (New) The expression product of a mammalian viral pathogen gene according to Claim 21, wherein said expression product has a physiological effect upon ingestion by a mammal.

23. (New) The method according to Claim 1 or Claim 14, wherein said integrated sequence contains one or more transcriptional and translational initiation region(s) derived at least in part from a transcriptional and translational initiation region of a Ti- or Ri-plasmid.

24. (New) The method according to Claim 23, wherein said transcriptional and translational initiation region is derived at least in part from a transcriptional and translational initiation region of a Ti- or Ri-plasmid regulates expression of mannopine synthase, octopine synthase or nopaline synthase.

25. (New) The method according to Claim 1 or Claim 14, wherein said transcriptional and translational initiation region of said first expression cassette regulates expression of a plant gene.

26. (New) The method according to Claim 1 or Claim 14, wherein said first or second expression cassette further comprises a T-DNA boundary.

27. (New) Plant matter comprising plant cells containing an expression product of a mammalian virus pathogen gene free from non-plant contaminants produced by a method comprising:

growing a transformed dicotyledonous plant comprising plant cells containing an integrated sequence comprising a first expression cassette having in the direction of transcription (1) a first transcriptional and translational initiation region functional in said plant cells, (2) a first structural gene coding for said expression product of a mammalian viral pathogen gene, (3) a first termination region; and a second expression cassette having in the direction of transcription (4) a second transcriptional and translational initiation region functional in said plant cells, (5) a second structural gene coding for a peptide that allows selection of plant cells expressing said second structural gene, (6) a second termination region, so that said first structural gene is expressed and plant matter comprising plant cells containing an expression product of a mammalian virus pathogen gene free of non-plant contaminants is obtained.

28. (New) The plant matter according to Claim 27, further comprising the step of isolating said expression product of mammalian viral pathogen gene substantially free of plant cell components.

29. (New) A composition comprising:

an expression product of a viral pathogen gene free from non-plant contaminants.

30. (New) The expression product of a mammalian viral pathogen gene according to Claim 29, wherein said expression product is a mature mammalian virus peptide.

31. (New) The expression product of a mammalian viral pathogen gene according to Claim 30, wherein said mature mammalian virus peptide is a mammalian virus coat peptide.

32. (New) The expression product of a mammalian viral pathogen gene according to Claim 30, wherein said mature mammalian virus peptide is a mammalian virus core peptide.

33. (New) Plant matter comprising:

plant cells containing a mammalian virus peptide.

34. (New) The plant matter according to Claim 33, wherein said plant matter is edible.

35. (New) The plant matter according to Claim 34, wherein said mammalian virus peptide has a physiological effect upon ingestion by a mammal.

36. (New) The plant matter according to Claim 33, wherein said mammalian virus peptide is a mammalian virus coat peptide.

37. (New) The plant matter according to Claim 33, wherein said mammalian virus peptide is a mammalian virus core peptide.

38. (New) The plant matter according to Claim 33, wherein said mammalian virus peptide is a mature mammalian virus peptide.

39. (New) Dicotyledonous plant cells having an integrated sequence comprising:

a first expression cassette having as operatively linked components in the direction of transcription (1) a first transcriptional and translational initiation region functional in said plant cells, (2) a first structural gene coding for a mammalian virus peptide, and (3) a first termination region.

40. (New) The dicotyledenous plant cells according to Claim 39, wherein said plant cells are tobacco plant cells.

41. (New) The dicotyledenous plant cells according to Claim 39, wherein said plant cells are seed cells.

42. (New) The dicotyledenous plant cells according to Claim 39, wherein said plant cells are rapeseed cells.

43. (New) The dicotyledenous plant cells according to Claim 39, wherein said mammalian virus peptide is a mammalian viral coat peptide.

44. (New) The dicotyledenous plant cells according to Claim 39, wherein said mammalian virus peptide is a mammalian viral core peptide.--

REMARKS

Claims 2-13 are cancelled and new Claims 14-44 have been added. Support for mammalian virus peptide is found on page 5, lines 1-3 and 21-26. Support for expression cassette is found on page 3, lines 17-29. Support for T-DNA and Ti- or Ri-plasmid is